

REMARKS

An amendment under 37 C.F.R. 1.116 was filed in this matter on October 31, 2006. It is not clear from the record whether or not the amendment was entered. Therefore, this amendment treats the amendment as not being entered, and presents amendments to the claims as they existed as the office action of August 1, 2006.

By this amendment, claim 2 has been canceled (aspects of claim 2 have been incorporated into claim 1). Claims 1, 3, and 4 have been amended. The application includes claims 1 and 3-9.

Claim 5 has previously been allowed.

Claim 1 has been amended based on telephone interviews with Examiner Martin which took place on January 23 and 24, 2007. In particular, claim 1 now clarifies that the droplets are cured in flight using a curing intensity which varies depending on said image on said recording medium wherein at least some of said droplets being cured to a different viscosity than other droplets based on adjustments to said curing intensity which are related to said image which is recorded on said recording medium. With reference to Figures 3 and 4 of the application, two different examples of the recited invention are shown. In Figure 3, if different intensities are used to irradiate different droplets for deposition in an area (i.e., area 16a; see also page 12 in the last paragraph, a textured surface coating can be created in one area 16a, and a smooth surface coating can be created in another area 16b. In Figure 4, droplets deposited in area 14a might be deposited with less radiant energy than droplets in areas 14b (making the droplets in area 14a less viscous) so that a smooth surface can be produced on an image even when overcoating areas which have higher and lower recording densities (i.e., areas where the underlying recording ink projects to relatively higher and lower levels from the surface of the recording medium)(see page 13 of the patent application).

Claims 1 and 9 would not be obvious over any combination of JP 2000141708 to Matsunaga in view of JP 02307731 to Higashiyama in view of the claims as amended. Similarly, none of the dependent claims would be obvious over a combination of Matsunaga and Higashiyama in further view of such

secondary references as U.S. Patent 6,783,227 to Suzuki (see claims 2 and 3), U.S. Patent 4,952,444 to Kawamata (see claim 4), U.S. Patent 5,750,186 to Frazzitta, and U.S. Patent 6,626,531 to Fujii.

As is acknowledged in previous office actions, Matsunaga does not disclose curing of droplets while they are in flight. In short, Matsunaga is unrelated to the present invention and contemplates simply applying a liquid coating layer on the surface of an article and curing the coating layer.

The Higashiyama reference pertains to a three-dimensional molding apparatus. In Higashiyama, liquid droplets of a photo-setting resin emitted from an ink jet head are partially cured during flight from an ink jet head.

At the outset, Higashiyama appears to be curing the ink or some other material itself (i.e., the abstract states that the purpose of the Higashiyama reference is to "reduce the load of maintenance by preventing the clogging of an ink jet head and to obtain a molded product excellent in dimensional accuracy having no dripping or the like", and further, in Higashiyama, the partially cured material is "laminated to a molding stage 31" (this does not appear to be a recording medium)). Thus, Higashiyama is not drawn to creating a "clear" overcoating layer as contemplated by the present invention, and combining Higashiyama with Matsunaga would not teach one of ordinary skill in the art to use a partial curing procedure on clear overcoating droplets, as the only teaching between the two references of Higashiyama and Matsunaga is Matsunaga's teaching of curing a liquid overcoat layer after it is applied to the surface of a recording medium.

Further, in accordance with the telephone interviews of January 23 and 24, 2007, claim 1 has been amended to recite using a curing intensity which varies depending on said image on said recording medium wherein at least some of said droplets being cured to a different viscosity than other droplets based on adjustments to said curing intensity which are related to said image which is recorded on said recording medium. In sharp contrast, the Abstract of Higashiyama states that "The low viscosity liquid droplets of a photo-setting resin emitted from an ink jet head are cured to an arbitrary degree by a resin curing irradiation means 33 and subsequently laminated to a molding stage 31" (emphasis added). Claim 1 of the present invention makes clear that some of the droplets are

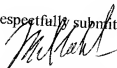
cured to a different viscosity than other droplets based on adjustments to the curing intensity which are related to the image data recorded on the recording medium. This is quite the opposite of the "arbitrary degree" specified in Higashiyama. Furthermore, claim 1 of the present invention makes clear that a hard copy having a specified surface property is prepared by the causing, curing, and depositing procedures. As noted above, this process can be used to make roughened areas (Figure 3), smooth surfaces over top printing of different densities (Figure 4). The first full paragraph on page 14 of the application notes that the process of this invention allows for selectively making a variety of coatings from clear droplets which range from smooth to silk surface. Higashiyama, which as noted above appears unrelated to making a coating layer of any kind, clearly does not make obvious to one of ordinary skill in the art the concept of making specific surface textures over a recorded image, and further, does not make obvious to one of ordinary skill in the art precise adjustment of the intensities of radiant energy used to cure droplets while in flight to different viscosities so that different surface asperities can be created in an overcoating layer. In claim 1 as amended different droplets are cured to different viscosities based on curing intensity adjustments which are made based on the recorded image. None of the secondary references supply this feature which is missing from both Matsunaga and Higashiyama. Therefore, all claims are now in condition for allowance.

In view of the foregoing, it is respectfully requested that the application be reconsidered, that claims 1-9 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,



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